



Department of Defense INSTRUCTION

NUMBER 4165.57

November 8, 1977

ASD(MRA&L)

SUBJECT: Air Installations Compatible Use Zones

- References:
- (a) Department of the Air Force Manual 86-8, "Airfield and Airspace Criteria," November 10, 1964
 - (b) Department of the Navy Publication, NavFac P-272, "Definitive Designs for Naval Shore Facilities," July 1962
 - (c) Department of the Navy Publication, NavFac P-80, "Facility Planning Factor Criteria for Navy and Marine Corps Shore Installations"
 - (d) through (j), see enclosure 1

1. PURPOSE

This Instruction: (1) sets forth Department of Defense policy on achieving compatible use of public and private lands in the vicinity of military airfields; (2) defines (a) required restrictions on the uses and heights of natural and man-made objects in the vicinity of air installations to provide for safety of flight and to assure that people and facilities are not concentrated in areas susceptible to aircraft accidents; and (b) desirable restrictions on land use to assure its compatibility with the characteristics, including noise, of air installations operations; (3) describes the procedures by which Air Installations Compatible Use Zones (AICUZ) may be defined; and (4) provides policy on the extent of Government interest in real property within these zones that may be retained or acquired to protect the operational capability of active military airfields (subject in each case to the availability of required authorizations and appropriations).

2. APPLICABILITY

This Instruction applies to air installations of the Military Departments located within the United States, its territories, trusts, and possessions.

3. CRITERIA

3.1. General. The Air Installations Compatible Use Zone for each military air installation shall consist of (a) land areas upon that certain uses may obstruct the airspace or otherwise be hazardous to aircraft operations, and (b) land areas that are exposed to the health, safety or welfare hazards of aircraft operations.

3.2. Height of Obstructions. The land area and height standards defined in AFM 86-8 (reference (a)), NavFac P-272 (reference (b)), and P-80 (reference (c)), and TM 5-803-4 (reference (d)) will be used for purposes of height restriction criteria.

3.3. Accident Potential

3.3.1. General

3.3.1.1. Areas immediately beyond the ends of runways and along primary flight paths are subject to more aircraft accidents than other areas. For this reason, these areas should remain undeveloped, or if developed should be only sparsely developed in order to limit, as much as possible, the adverse effects of a possible aircraft accident.

3.3.1.2. DoD fixed-wing runways are separated into two types for the purpose of defining accident potential areas. Class A runways are those restricted to light aircraft (see enclosure 2) and which do not have the potential for development for heavy or high performance aircraft use or for which no foreseeable requirements for such use exists. Typically these runways have less than 10 percent of their operations involving Class B aircraft (enclosure 2) and are less than 8000 feet long. Class B runways are all other fixed-wing runways.

3.3.1.3. The following descriptions of Accident Potential Zones are guidelines only. Their strict application would result in increasing the safety of the general public but would not provide complete protection against the effects of aircraft accidents. Such a degree of protection is probably impossible to achieve. Local situations may differ significantly from the assumptions and data upon which these guidelines are based and require individual study. Where it is desirable to restrict the density of development of an area, it is not usually possible to state that one density is safe and another is not. Safety is a relative term and the objective should be the realization of the greatest degree of safety that can be reasonably attained.

3.3.2. Accident Potential and Clear Zones (See enclosure 3)

3.3.2.1. The area immediately beyond the end of a runway is the "Clear Zone," an area that possesses a high potential for accidents, and has traditionally been acquired by the Government in fee and kept clear of obstructions to flight.

3.3.2.2. Accident Potential Zone I (APZ I) is the area beyond the clear zone that possesses a significant potential for accidents.

3.3.2.3. Accident Potential Zone II (APZ II) is an area beyond APZ I having a measurable potential for accidents.

3.3.2.4. Modifications to APZs I and II will be considered if:

3.3.2.4.1. The runway is infrequently used.

3.3.2.4.2. The prevailing wind conditions are such that a large percentage (i.e., over 80 percent) of the operations are in one direction.

3.3.4.3. Most aircraft do not overfly the APZs as defined herein during normal flight operations (modifications may be made to alter these zones and adjust them to conform to the line of flight).

3.3.4.4. Local accident history indicates consideration of different area.

3.3.4.5. Other unusual conditions exist.

3.3.5. The takeoff safety zone for VFR rotary-wing facilities will be used for the clear zone; the remainder of the approach-departure zone will be used as APZ 1.

3.3.6. Land use compatibility with clear zones and APZs is shown in enclosure 4.

3.4. Noise

3.4.1. General. Noise exposure is described in various ways. In 1964, the Department of Defense began using the Composite Noise Rating (CNR) system to describe aircraft noise. Several years ago the Noise Exposure Forecast (NEF) system began to replace CNR. In August 1974, the Environmental Protection Agency notified all Federal Agencies of intent to implement the Day-Night Average Sound Level (Ldn) noise descriptor, and this was subsequently adopted by the DoD. This

Ldn system will be used for air installations. Where AICUZ studies have been published using the CNR of NEF systems or where studies have progressed to the point that a change in the descriptor system is impractical or uneconomical, such studies may be published and continued in use. However, in such cases, data necessary for conversion to Ldn should be collected and studies should be revised as soon as time and budgetary considerations permit. However, if State or local laws require some other noise descriptor, it may be used in lieu of Ldn.

3.4.2. Noise Zones

3.4.2.1. As a minimum, contours for Ldn 65, 70, 75 and 80 shall be plotted on maps as part of AICUZ studies.

3.4.2.2. See section 7., below, for a further discussion of Ldn use and conversion to Ldn from previously used systems.

4. POLICY

4.1. General. As a first priority step, all reasonable, economical and practical measures will be taken to reduce and/or control the generation of noise from flying and flying related activities. Typical measures normally include siting of engine test and runup facilities in remote areas if practical, provision of sound suppression equipment where necessary, and may include additional measures such as adjustment of traffic patterns to avoid built-up areas where such can be accomplished with safety and without significant impairment of operational effectiveness. After all reasonable noise source control measures have been taken, there will usually remain significant land areas wherein the total noise exposure is such as to be incompatible with certain uses.

4.2. Compatible Use Land

4.2.1. General

4.2.1.1. DoD policy is to work toward achieving compatibility between air installations and neighboring civilian communities by means of a compatible land use planning and control process conducted by the local community.

4.2.1.2. Land use compatibility guidelines will be specified for each Clear Zone, Accident Potential Zone, Noise Zone and combination of these as appropriate.

4.2.1.3. The method of control and regulation of land usage within each zone will vary according to local conditions. In all instances the primary objective will be to identify planning areas and reasonable land use guidelines that will be recommended to appropriate agencies who are in control of the planning functions for the affected areas.

4.2.2. Property Rights Acquisition

4.2.2.1. General. While noise generated by aircraft at military air installations should be an integral element of land use compatibility efforts, the acquisition of property rights on the basis of noise by the Department of Defense may not be in the long term best interests of the United States. Therefore, while the complete requirement for individual installations should be defined prior to any programming actions, acquisition of interests should be programmed in accordance with the following priorities.

4.2.2.2. Priorities

4.2.2.2.1. The first priority is the acquisition in fee and/or appropriate restrictive easements of lands within the clear zones whenever practicable.

4.2.2.2.2. Outside the clear zone, program for the acquisition of interests first in Accident Potential Zones and secondly in high noise areas only when all possibilities of achieving compatible use zoning, or similar protection, have been exhausted and the operational integrity of the air installation is manifestly threatened. If programming actions are considered necessary, complete records of all discussions, negotiations, testimony, etc., with or before all local officials, boards, etc., must be maintained. This will ensure that documentation is available to indicate that all reasonable and prudent efforts were made to preclude incompatible land use through cooperation with local government officials and that all recourse to such action has been exhausted. Such records shall accompany programming actions and/or apportionment requests for items programmed prior to the date of this Instruction. In addition, a complete economic analysis and assessment of the future of the installation must be included.

4.2.2.2.2.1. Costs of establishing and maintaining compatible use zones must be weighed against other available options, such as changing the installation's mission and relocating the flying activities, closing the installation, or such other courses of action as may be available. In performing analyses of this type, exceptional care must be exercised to assure that a decision to change or relocate a

mission is fully justified and that all aspects of the situation have been thoroughly considered.

4.2.2.2.2. When, as a result of such analysis, it is determined that relocation or abandonment of a mission will be required, then no new construction shall be undertaken in support of such activities except as is absolutely necessary to maintain safety and operational readiness pending accomplishment of the changes required.

4.2.2.2.3. Guidelines. This Instruction shall not be used as sole justification for either the acquisition or the retention of owned interests beyond the minimum required to protect the Government.

4.2.2.2.3.1. Necessary rights to land within the defined compatible use area may be obtained by purchase, exchange, or donation, in accordance with all applicable laws and regulations.

4.2.2.2.3.2. If fee title is currently held or subsequently acquired in an area where compatible uses could be developed and no requirement for a fee interest in the land exists except to prevent incompatible use, disposal actions shall normally be instituted. Only those rights and interests necessary to establish and maintain compatible uses shall be retained. Where proceeds from disposal would be inconsequential, consideration may be given to retaining title.

4.2.2.2.3.3. If the cost of acquiring a required interest approaches closely the cost of fee title, consideration shall be given to whether acquisition of fee title would be to the advantage of the Government.

4.3. Rights and Interests That May Be Obtained. When it is determined to be necessary for the Federal Government to acquire interests in land, a careful assessment of the type of interest to be acquired is mandatory. Section 6. of this Instruction contains a listing of possible interests which should be examined for applicability.

4.4. Environmental Impact Statements

4.4.1. Any actions taken with respect to safety of flight, accident hazard, or noise that involve acquisition of interests in land must be examined to determine the necessity of preparing an environmental impact statement in accordance with DoD Directive 6050.1, "Environmental Considerations in DoD Actions," March 19, 1974 (reference (e)).

4.4.2. All such environmental impact statements must be forwarded to appropriate Federal and local agencies for review in accordance with reference (e).

4.4.3. Coordination with local agencies will be in accordance with OMB Circular A-95 (reference (f)).

5. THE AIR INSTALLATION COMPATIBLE USE PROGRAM

5.1. The Secretaries of the Military Departments will develop, implement and maintain a program to investigate and study all air installations in necessary order of priority to develop an Air Installation Compatible Use Zone (AICUZ) program for each air installation consistent with section 4., above. AICUZ studies that contain an analysis of land use compatibility problems and potential solutions shall be developed and updated as necessary. As a minimum, each Study shall include the following:

5.1.1. Determination by detailed study of flight operations, actual noise and safety surveys if necessary, and best available projections of future flying activities, desirable restrictions on land use due to noise characteristics and safety of flight;

5.1.2. Identification of present incompatible land uses;

5.1.3. Identification of land that if inappropriately developed would be incompatible;

5.1.4. Indication of types of desirable development for various land tracts;

5.1.5. Land value estimates for the zones in question.

5.1.6. Review of the airfield master plans to ensure that existing and future facilities siting is consistent with the policies in this Instruction.

5.1.7. Full consideration of joint use of air installations by activities of separate Military Departments whenever such use will result in maintaining operational capabilities while reducing noise, real estate and construction requirements.

5.1.8. Recommendations for work with local zoning boards, necessary minimum programs of acquisition, relocations, or such other actions as are indicated by the results of the Study.

5.2. Procedures. In developing AICUZ Studies the Secretaries of Military Departments shall:

5.2.1. Follow the review and comment procedures established under OMB Circular A-95 (reference (f));

5.2.2. Ensure that appropriate environmental factors are considered; and

5.2.3. Ensure that other local, State or Federal Agencies engaged in land use planning or land regulation for a particular area have an opportunity to review and comment upon any proposed plan or significant modification thereof.

5.3. Coordination with State and Local Governments. Secretaries of the Military Departments shall develop procedures for coordinating AICUZ Studies with the land use planning and regulatory agencies in the area. Developing compatible land use plans may require working with local governments, local planning commissions, special purpose districts, regional planning agencies, State agencies, State legislatures, as well as the other Federal Agencies. Technical assistance to local, regional, and State agencies to assist them in developing their land use planning and regulatory processes, to explain an AICUZ Study and its implications, and generally to work toward compatible planning and development in the vicinity of military air fields, should be provided.

5.4. Property Rights Acquisition. The AICUZ Study shall serve as the basis for new land acquisitions, property disposal, and other proposed changes in Military Departments real property holdings in the vicinity of military airfields where applicable.

5.5. Required Approvals. Based on the results of the AICUZ Studies, each Military Department will prepare recommendations for individual installations AICUZ programs for approval as follows:

5.5.1. The Secretaries of the Military Departments or their designated representatives will review and approve the AICUZ Studies establishing the individual air installation AICUZ program.

5.5.2. When relocation or abandonment of a mission or an installation is apparently required, the Secretaries of the Military Departments will submit the proposed plan for the installation, with appropriate recommendations, to the Secretary of Defense for approval.

5.5.3. A time-phased fiscal year plan for implementation of the AICUZ program in priority order, consistent with budgetary considerations, will be developed for approval by the Secretary of the Military Departments, or their designated representatives. These plans will serve as the basis for all AICUZ actions at the individual installations.

5.6. Coincident Actions. The Secretaries of the Military Departments will also take action to assure in accordance with subsections 4.1. and 4.2., above, that:

5.6.1. As the first priority action in developing an AICUZ program, full attention is given to safety and noise problems.

5.6.2. In all planning, acquisition and siting of noise generating items, such as engine test stands, full advantage is taken of available alleviating measures, such as remote sites or sound suppression equipment.

5.6.3. The noise exposure of on-installation facilities personnel are considered together with that off the installation.

5.6.4. There is development or continuation with renewed emphasis, of programs to inform local governments, citizens groups, and the general public of the requirements of flying activities, the reasons therefore, the efforts that may have been made or may be taken to reduce noise exposure, and similar matters that will promote and develop a public awareness of the complexities of air installation operations, the problems associated therewith, and the willingness of the Department of Defense to take all measures possible to alleviate undesirable external effects.

5.7. Responsibilities for the acquisition, management and disposal of real property are defined in DoD Directive 4165.6, "Real Property, Acquisition, Management and Disposal," December 22, 1976 (reference (g)).

5.8. The Deputy Assistant Secretary of Defense (Installations and Housing) will examine the program developed pursuant to this Instruction, and from time to time review the progress thereunder to assure conformance with policy.

6. REAL ESTATE INTERESTS TO BE CONSIDERED FOR CLEAR ZONES AND ACCIDENT POTENTIAL ZONE

6.1. The right to make low and frequent flights over said land and to generate noises associated with:

- 6.1.1. Aircraft in flight, whether or not while directly over said land;
- 6.1.2. Aircraft and aircraft engines operating on the ground at said base; and
- 6.1.3. Aircraft engine test/stand/cell operations at said base.

6.2. The right to regulate or prohibit the release into the air of any substance that would impair the visibility or otherwise interfere with the operations of aircraft, such as, but not limited to, steam, dust and smoke.

6.3. The right to regulate or prohibit light emissions, either direct or indirect (reflective), which might interfere with pilot vision.

6.4. The right to prohibit electrical emissions that would interfere with aircraft and aircraft communications systems or aircraft navigational equipment.

6.5. The right to prohibit any use of the land that would unnecessarily attract birds or waterfowl, such as, but not limited to, operation or sanitary landfills, maintenance of feeding stations or the growing of certain types of vegetation attractive to birds or waterfowl.

6.6. The right to prohibit and remove any buildings or other non-frangible structures.

6.7. The right to top, cut to ground level, and to remove trees, shrubs, brush or other forms of obstruction that the installation commander determines might interfere with the operation of aircraft, including emergency landings.

6.8. The right of ingress and egress upon, over and across said land for the purpose of exercising the rights set forth herein.

6.9. The right to post signs on said land indicating the nature and extent of the Government's control over said land.

6.10. The right to prohibit land uses other than the following:

- 6.10.1. Agriculture.
- 6.10.2. Livestock grazing.
- 6.10.3. Permanent open space.

6.10.4. Existing water areas.

6.10.5. Rights or way for fenced two-lane highways, without sidewalks or bicycle trails and single-track railroads.

6.10.6. Communications and utilities right of way, provided all facilities are at or below grade.

6.11. The right to prohibit entry of persons onto the land except in connection with activities authorized under subsections 6.1., 6.2., 6.3., and 6.6., of this section, above.

6.12. The right to disapprove land uses not in accordance with enclosure 4.

6.13. The right to control the height of structures to insure that they do not become a hazard to flight.

6.14. The right to install airfield lighting and navigational aids.

7. AIR INSTALLATIONS COMPATIBLE USE ZONE NOISE DESCRIPTORS

7.1. Composite Noise Rating (CNR) and Noise Exposure Forecast (NEF) values as previously required by sections 3., 4., and 5. of DoD Instruction 4165.57, "Air Installations Compatible Use Zones," July 30, 1973 (reference (j)) will no longer be used.

7.2. Where CNR 100 (or the quietest boundary of CNR Zone 2 if otherwise computed) or NEF 30 would previously have been used, data shall be collected sufficient to permit computation of Ldn 65 noise contours and these noise contours shall be plotted on maps accompanying AICUZ studies.

7.3. Where CNR 115 (or the boundary of CNR Zone 3 if otherwise computed) or NEF 40 would previously have been used, data shall be collected sufficient to permit computation of Ldn 75 noise contours and these noise contours shall be plotted on maps accompanying AICUZ studies.

7.4. Where previous studies have used CNR or NEF, for matters of policy, noise planning and decisionmaking, areas quieter than Ldn 65 shall be considered approximately equivalent to the previously used CNR Zone 1 and to areas quieter than NEF 30. The area between Ldn 65 and Ldn 75 shall be considered approximately

equivalent to the previously used CNR Zone 2 and to the area between NEF 30 and 40. The area of higher than Ldn 75 shall be considered approximately equivalent to the previously used CNR Zone 3 and to noise higher than NEF 40. The procedures shall remain in effect only until sufficient data to compute Ldn values can be obtained.

7.5. When computing helicopter noise levels using data collected from meters, a correction of +7db shall be added to meter readings obtained under conditions where blade slap was present until and unless meters are developed that more accurately reflect true conditions.

7.6. Noise contours less than Ldn 65 or more than Ldn 80 need not be plotted for AICUZ studies.

7.7. Since CNR noise levels are not normally directly convertible to Ldn values without introducing significant error, care should be exercised to assure that personnel do not revise previous studies by erroneously relabeling CNR contours to the approximately equivalent Ldn values.

7.8. Where intermittent impulse noises are such as are associated with bombing and gunnery ranges are of importance, such noises will be measured using standard "C" weighting of the various frequencies to insure a description most representative of actual human response.

8. EFFECTIVE DATE AND IMPLEMENTATION.

This Instruction is effective immediately. Forward two copies of implementing regulations to the Assistant Secretary of Defense (Manpower, Reserve Affairs, and Logistics) within 90 days. (Final Rule of this Instruction was published in the Code of Federal Regulations under 32 CFR 256.)

A handwritten signature in black ink, appearing to read 'J. P. White', with a stylized flourish at the end.

JOHN P. WHITE
Assistant Secretary of Defense
(Manpower, Reserve Affairs & Logistics)

Enclosures - 4

- E1. References, continued
- E2. Runway Classification by Aircraft Types
- E3. Accident Potential Zone Guidelines
- E4. Land Use Compatibility Guidelines for Accident Potential Zones

E1. ENCLOSURE 1

REFERENCES, continued

- (d) Department of the Army Technical Manual, TM 5-803-4, "Planning of Army Aviation Facilities," March 1970
- (e) DoD Directive 6050.1, "Environmental Considerations in DoD Actions," March 19, 1974
- (f) Office of Management and Budget Circular A-95, "Evaluation, Review and Coordination of Federal and Federally Assisted Programs and Projects," February 9, 1971
- (g) [DoD Directive 4165.6](#), "Real Property, Acquisition, Management and Disposal," December 22, 1976
- (h) DoD Instruction 4170.7, "Natural Resources - Forest Management," June 21, 1965
- (i) [DoD Instruction 7310.1](#), "Accounting and Reporting for Property Disposal and Proceeds from Sale of Disposable Personal Property and Lumber or Timber Products," July 10, 1970
- (j) DoD Instruction 4165.57, "Air Installations Compatible Use Zones," July 30, 1973 (hereby canceled)

E2. ENCLOSURE 2RUNWAY CLASSIFICATION BY AIRCRAFT TYPE

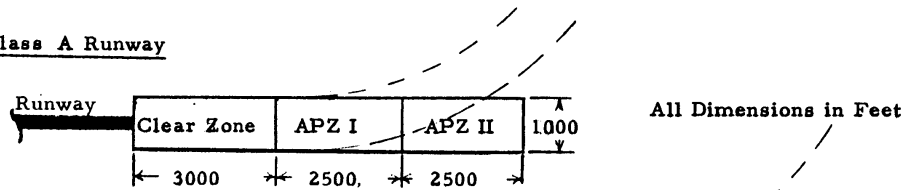
<u>Class A Runways</u>		<u>Class B Runways</u>		
S-2	U-10	A-1	F-106	C-121
VC-6	U-11	A-3	F-5	EC-121
C-1	LU-16	A-4	F-15	WC-121
C-2	TU-16	A-5		C-123
TC-4C	HU-16	A-6	S-3	C-130
C-7	U-21	A-7	T-29	HC-130B
C-8	QU-22	A-38	T-33	C-131
C-12	E-1	AV-8	T-37	C-140
C-47	E-2	P-2	T-39	C-5A
C-117	O-1	P-3	T-1	KC-97
U-1	O-2	F-9	T-2	C-124
U-3	OV-1	F-14	T-38	EC-130E
U-6	OV-10	F-4	B-52	HC-130
U-8	T-28	F-8	B-57	C-135
U-9	T-34	F-111	B-57F	VC-137
	T-41	YF-12	B-66	C-141
	T-42	SR-71	C-9	KC-135
		F-100	C-54	EC-135
		F-101	C-97	RC-135
		F-102	C-118	U-2
		F-104	C-119	
		F-105		

E3. ENCLOSURE 3

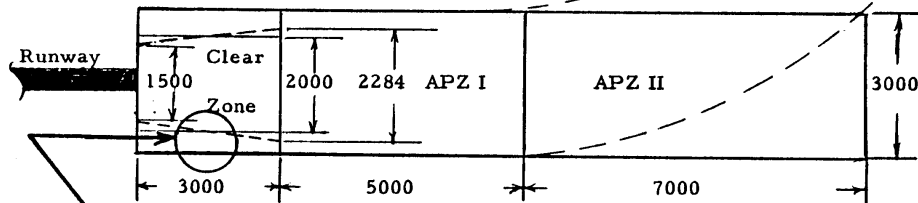
ACCIDENT POTENTIAL ZONE GUIDELINES

Accident Potential Zone Guidelines

Class A Runway



Class B Runway



Width of clear zone may be based on individual service analysis of highest accident potential area for specific runway use and varied based on acquisition constraints. 3000 foot wide clear zone is desirable for new construction.

E4. ENCLOSURE 4LAND USE COMPATIBILITY GUIDELINES FOR ACCIDENT POTENTIALZones and FootnotesLand Use CategoryCompatibility ¹Clear ZoneAPZ IAPZ II

Single family	NO	NO	YES ²
2-4 family	NO	NO	NO
Multi-family dwellings	NO	NO	NO
Group quarters	NO	NO	NO
Residential hotels	NO	NO	NO
Mobile home parks or courts	NO	NO	NO
Other residential	NO	NO	NO

Industrial/Manufacturing ³

Food and kindred products	NO	NO	YES
Textile mill products	NO	NO	YES
Apparel	NO	NO	NO
Lumber and wood products	NO	YES	YES
Furniture and Fixtures NO	YES	YES	
Paper and Allied Products	NO	YES	YES
Printing, publishing	NO	YES	YES
Chemicals and allied products	NO	NO	NO
Petroleum refining and related industries	NO	NO	NO

<u>Land Use Category</u>	<u>Compatibility</u>		
	<u>Clear Zone</u>	<u>APZ I</u>	<u>APZ II</u>
Rubber and misc. plastic goods	NO	NO	NO
Stone, clay, and glass products	NO	YES	YES
Primary metal industries	NO	YES	YES
Fabricated metal products	NO	YES	YES
Professional, scientific and controlling instruments	NO	NO	NO
Misc. manufacturing	NO	YES	YES
<u>Transportation, Communications & Utilities</u> ⁴			
Railroad, rapid rail transit (on-grade)	NO	YES ⁴	YES
Highway and street ROW	YES	YES	YES
Auto parking	NO	YES	YES
Communication	YES	YES	YES
Utilities	YES	YES ⁴	YES
Other transportation, communications & utilities	YES	YES	YES
<u>Commercial/Retail Trade</u>			
Wholesale trade	NO	YES	YES
Building materials-retail	NO	YES	YES
General merchandise-retail	NO	NO	YES
Food-retail	NO	NO	YES
Automotive, marine, aviation-retail	NO	YES	YES

<u>Land Use Category</u>	<u>Compatibility</u>		
	<u>Clear Zone</u>	<u>APZ I</u>	<u>APZ II</u>
Apparel and accessories-retail	NO	NO	YES
Furniture, homefurnishing-retail	NO	NO	YES
Eating and drinking places	NO	NO	NO
Other retail trade	NO	NO	YES
Personal and Business Services ⁵			
Finance, insurance and real estate	NO	NO	YES
Personal services	NO	NO	YES
Business services	NO	NO	YES
Repair services	NO	YES	YES
Professional services	NO	NO	YES
Contract construction services	NO	YES	YES
Indoor recreation services	NO	NO	YES
Other services	NO	NO	YES
<u>Public and Quasi-Public Services</u>			
Government services	NO	NO	YES ⁵
Educational services	NO	NO	NO
Cultural activities	NO	NO	NO
Medical and other health services	NO	NO	NO
Cemeteries	NO	YES ⁶	YES ⁶
Non-profit organization incl. churches	NO	NO	NO
Other public and quasi-public services	NO	NO	YES

<u>Land Use Category</u>	<u>Compatibility</u>		
	<u>Clear Zone</u>	<u>APZ I</u>	<u>APZ II</u>
<u>Outdoor Recreation</u>			
Playground's neighboring parks	NO	NO	YES
Community and regional parks	NO	YES ⁷	YES ⁷
Nature exhibits	NO	YES	YES
Spectator sports incl. arenas	NO	NO	NO
Golf course, ⁸ riding stables ⁹	NO	YES	YES
Water-based recreational areas	NO	YES	YES
Resort and group camps	NO	NO	NO
Entertainment assembly	NO	NO	NO
Other outdoor recreation	NO	YES ⁷	YES
<u>Resource Production & Extraction and Open Land ¹⁰</u>			
Agriculture	YES	YES	YES ¹¹
Livestock farming, animal breeding	NO	YES	YES
Forestry activities ¹²	NO ¹³	YES	YES
Fishing activities & related services ¹⁴	NO ¹⁵	YES ¹⁴	YES
Mining activities	NO	YES	YES
Permanent open space	YES	YES	YES ¹⁴
Water areas ¹⁴	YES	YES	YES

Footnotes

¹ A "Yes" or "No" designation for compatible land use is to be used only for gross comparison. Within each, uses exist where further definition may be needed as to whether it is clear or normally acceptable/unacceptable owing to variations in densities of people and structures.

² Suggested maximum density 1-2 DU/AC, possibly increased under a Planned Unit Development where maximum lot covered less than 20 percent.

³ Factors to be considered: Labor intensity, structural coverage, explosive characteristics, air pollution.

- 4 No passenger terminals and no major above ground transmission lines in APZ I.
- 5 Low-intensity office uses only. Meeting places, auditoriums, etc., not recommended.
- 6 Excludes chapels.
- 7 Facilities must be low intensity.
- 8 Clubhouse not recommended.
- 9 Concentrated rings with large classes not recommended.
- 10 Includes livestock grazing but excludes feedlots and intensive animal husbandry.
- 11 Includes feedlots and intensive animal husbandry.
- 12 No structures (except airfield lighting), buildings or above-ground utility/communication lines should be located in the clear zone. For further runway safety clearance limitations pertaining to the clear zone, see AFM 86-6 (reference (a)), TM 5-803-4 (reference (d)) and NAVFAC P-80 (reference (c)).
- 13 Lumber and timber products removed due to establishment, expansion or maintenance of clear zones will be disposed of in accordance with DoD Instruction 4170.7, "Natural Resources - Forest Management," June 21, 1965 (reference (h)) and DoD Instruction 7310.1, "Accounting and Reporting for Property Disposal and Proceeds from Sale of Disposable Personal Property and Lumber or Timber Products," July 10, 1970 (reference (i)).
- 14 Includes hunting and fishing.
- 15 Controlled hunting and fishing may be permitted for the purpose of wildlife control.